In the Claims

Please replace all prior versions, and listings, of claims in the application with the following list of claims:

1.   (Amended) A method of processing an out of band control command executed by a host computer in a multi-path system including the host computer, a device and multiple physical paths coupling the host computer to the device, the out of band control command identifying a target address in the device and bypassing at least one layer in a normal read/write path in the host computer, the out of band control command further identifying, from among the multiple physical paths, a target physical path for transmission of the out of band control command between the host computer and the device, the host computer comprising a plurality of adapters each adapted to interface the host computer to one of the multiple physical paths, the method comprising steps of:

    (A)   selecting a selected physical path for transmitting out of band control command between the host computer and the device, the selected physical path being selected from among the multiple physical paths based upon a selection criteria that enables the selected physical path to be other than the target physical path identified by the out of band control command; and

    (B)   transmitting the out of band control command through the one of the plurality of adapters corresponding to the selected path to [between the host computer and] the device over the selected physical path.

2.   (Previously Presented) The method of claim 1, wherein the device is a data storage system, wherein the out of band control command requests access to information stored on the data storage system, and wherein the step (B) includes a step of transmitting the information between the host computer and the data storage system over the selected physical path.

3.   (Previously Presented) The method of claim 2, wherein the multi-path system further includes a second computer that is coupled to the data storage system, wherein the data storage system includes a shared storage region shared by the host computer and the second computer,

wherein the target address specifies the shared storage region, and wherein the step (B) includes a step of transmitting the information between the host computer and the shared storage region over the selected physical path.

4. (Previously Presented) The method of clam 1, wherein the step (A) includes a step of selecting the target physical path as the selected physical path when the target physical path is operational, and selecting a different one of the multiple physical paths as the selected physical path when the target physical path is non-operational.

5. (Previously Presented) The method of claim 4, wherein the step (A) further includes a step of automatically selecting the different one of the multiple physical paths when the target physical path is non-operational, without intervention of a system administrator.

6. (Previously Presented) The method of claim 1, wherein the step (A) includes a step of selecting the selected physical path based upon a selection algorithm that distributes, among the multiple physical paths a load of operations passing between the host computer and the device.

7. (Previously Presented) The method of claim 1, wherein the step (A) includes a step of selecting the selected physical path based upon a state of previously assigned operations queued for transmission from the host computer to the device over the multiple physical paths.

8. (Amended) A computer readable medium encoded with a program for execution on a host computer in a multi-path system including the host computer, a device and multiple physical paths coupling the host computer to the device, wherein the host computer executes an out of band control command identifying a target address in the device and bypassing at least one layer in a normal read/write path in the host computer, the out of band control command further identifying, from among the multiple physical paths, a target physical path for transmission of the out of band control command between the host computer and the device, the host computer comprising a plurality of adapters each adapted to interface the host computer to one of the multiple physical paths, the program when executed on the host computer, performs a method comprising steps of:

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(A)   selecting a physical path for transmitting the out of band control command

between the host computer and the device, the selected physical path being selected from

among the multiple physical paths based upon a selection criteria that enables the

selected physical path to be other than the target physical path identified by the out of

band control command; and

(B)   transmitting the out of band control command through the one of the plurality of

adapters corresponding to the selected path to [between the host computer and] the device

over the selected physical path.

9.   (Previously Presented) The computer readable medium of claim 8, wherein the device is

a data storage system, wherein the out of band control command requests access to information

stored on the data storage system, and wherein the step (B) includes a step of transmitting the

information between the host computer and the data storage system over the selected physical

path.

10.   (Previously Presented) The computer readable medium of claim 9, wherein the multi-

path system further includes a second computer that is coupled to the data storage system,

wherein the data storage system includes a shared storage region shared by the host computer

and the second computer, wherein the target address specifies the shared storage region, and

wherein the step (B) includes a step of transmitting the information between the host computer

and the shared storage region over the selected physical path.

11.   (Previously Presented) The computer readable medium of claim 8, wherein the step (A)

includes a step of selecting the target physical path as the selected physical path when the target

physical path is operational, and selecting a different one of the multiple physical paths as the

selected physical path when the target physical path is non-operational.

12.   (Previously Presented) The computer readable medium of claim 11, wherein the step (A)

further includes a step of automatically selecting the different one of the multiple physical paths

when the target physical path is non-operational, without intervention of a system administrator.

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13.   (Previously Presented) The computer readable medium of claim 8, wherein the step (A) includes a step of selecting the selected physical path based upon a selection algorithm that distributes, among the multiple physical paths, a load of operations passing between the host computer and the device.

14.   (Previously Presented) The computer readable medium of claim 8, wherein the step (A) includes a step of selecting the selected physical path based upon a state of previously assigned operations queued for transmission from the host computer to the device over the multiple physical paths.

15.   (Amended) A host computer for use in a multi-path system including the host computer, a device and multiple physical paths coupling the host computer to the device, the host computer comprising:

        at least one processor to execute an out of band control command identifying a target address in the device and bypassing at least one layer in a normal read/write path in the host computer, the out of band control command further identifying, from among the multiple physical paths, a target physical path for transmission of the out of band control command between the host computer and the device; [and]

        a plurality of adapters each adapted to interface the host computer to one of the multiple physical paths; and

        at least one controller that:

                selects a selected physical path for transmitting the out of band control command between the host computer and the device, the selected physical path being selected form among the multiple physical paths based upon a selection criteria that enables the selected physical path to be other than the target physical path identified by the out of band control command; and

                transmits the out of band control through the one of the plurality of adapters corresponding to the selected path to [between the host computer and] the device over the selected physical path.

16.   (Previously Presented) The host computer of claim 15, wherein the device is a data storage system, wherein the out of band control command requests access to information stored on the data storage system, and wherein the at least one controller transmits the information between the host computer and the data storage system over the selected physical path.

17.   (Previously Presented) The host computer of claim 16, wherein the multi-path system further includes a second computer that is coupled to the data storage system, wherein the data storage system includes a shared storage region shared by the host computer and the second computer, wherein the target address specifies the shared region, and wherein the at least one controller transmits the information between the host computer and the shared storage region over the selected physical path.

18.   (Previously Presented) The host computer of claim 15, wherein the at least one controller selects the target physical path as the selected physical path when the target physical path is operational, and selects a different one of the multiple physical paths as the selected path when the target physical path is non-operational.

19.   (Previously Presented) The host computer of claim 18, wherein the at least one controller automatically selects the different one of the multiple physical paths when the target physical path is non-operational, without intervention of a system administrator.

20.   (Previously Presented) The host computer of claim 15, wherein the at least one controller selects the selected physical path based upon a selection algorithm that distributes, among the multiple physical paths, a load of operations passing between the host computer and the device.

21.   (Previously Presented) The host computer of claim 15, wherein the at least one controller selects the selected physical path based upon a state of previously assigned operations queued for transmission from the host computer to the device over the multiple physical paths.

22.   (Previously Presented) The host computer of claim 15, wherein the at least one controller includes:

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means for selecting a selected physical path for transmitting the out of band control command between the host computer and the device, the selected physical path being selected from among the multiple physical paths based upon a selection criteria that enables the selected physical path to be other than the target physical path identified by the out of band control command; and

means for transmitting the out of band control command between the host computer and the device over the selected physical path.